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CLAIM AMENDMENTS

1. (Currently Amended) A method of fabricating thin-film semiconductor, comprising:

a scanning irradiation step of, in order to form a polycrystalline silicon film on a surface of a substrate ~~(9)~~, focusing first pulse laser light ~~(22)~~ having a visible wavelength into a line shape ~~(33)~~ having an intensity distribution of an approximately Gaussian shape in a width direction on the surface of said substrate and applying said light such that said line shape is shifted in said width direction;

an edge processing step of, after performing said scanning irradiation step in one position in one direction, applying second pulse laser light having an ultraviolet wavelength to an end region of an edge parallel to said width direction of a region ~~(36)~~ having undergone the scanning irradiation; and

a step of applying said scanning irradiation step again to cover a region ~~(39)~~ that is adjacent to the region ~~(36)~~ covered by said scanning irradiation step as well as overlaps said end region having undergone said edge processing step.

2. (Currently Amended) The method of fabricating thin-film semiconductor of claim 1, wherein said edge processing step is performed by focusing said second pulse laser light into an elongate shape ~~(38)~~ which can totally cover said edge for irradiation.

3. (Currently Amended) The method of fabricating thin-film semiconductor of claim 1, wherein said edge processing step is performed by focusing said second pulse laser light into a rectangle shape ~~(41)~~ to scan along said edge.

4. (New) A method of fabricating a polycrystalline silicon film on a substrate by crystallizing an amorphous silicon film on the substrate, the method comprising, sequentially:

focusing a laser beam of visible light into a line shape having a length and a width, with a Gaussian intensity distribution along the width, on an amorphous silicon film;

scanning the laser beam of visible light across the amorphous silicon film in a direction perpendicular to the length of the line shape, so the laser beam of visible light scans a first area including first and second end regions, lying along sides of the first area that are perpendicular to the length of the line shape, and converts amorphous silicon in the first area into polycrystalline silicon;

focusing a laser beam of ultraviolet light on the first end region;

scanning the laser beam of ultraviolet light across the first end region in the direction perpendicular to the length of the line shape to convert the first end region into amorphous silicon;

focusing the laser beam of visible light on a line adjacent to the first area and overlapping the first end region; and

scanning the laser beam of visible light in the direction perpendicular to the length of the line shape to convert amorphous silicon into polycrystalline silicon in a second area adjacent to the first area.

5. (New) The method of claim 4 including focusing the laser beam of ultraviolet light into an elongate shape before scanning the first end region.

6. (New) The method of claim 4 including focusing the laser beam of ultraviolet light into a rectangular shape before scanning the first end region.